ENERGY STAR® Qualified Imaging Equipment Specification Revision

October 14, 2005 Stakeholder Meeting

Summary of Key Points

Introduction

During the October industry meeting, stakeholders raised a number of key points as revision of the imaging equipment specification was discussed. EPA has prepared this summary document to share comments raised during the meeting with interested stakeholders who were unable to participate in the meeting itself. This document is not intended to fully summarize the detailed and useful discussion that transpired for each topic, but rather, to provide a high-level overview of comments that stakeholders asked EPA to consider. Comments are ordered and grouped by the agenda for this meeting, available at www.energystar.gov/productdevelopment. All other matters related to this meeting including resulting action items, presentations, and the attendee list, are also available at the aforementioned Web site.

Typical Electricity Consumption (TEC) Data

When drawing the specification limits, EPA should ensure there is a mix of manufacturers' data included in the top 25%, and not simply a set of data from a single company.

EPA should reduce the number of testing combinations to three, removing the fourth combination for Taiwan, which calls for testing at 115V using A4 paper.

+/- 10% difference in job stability is minor. EPA should consider removing jobs 3 and 4 from the ultimate TEC test procedure to reduce the length of the measurement process.

EPA should retain jobs 3 and 4 in the dataset it collects from manufacturers for specification-setting since these jobs were included in the final TEC test procedure when testing began.

The option presented for setting TEC specification limits based on energy per image may not work, because the number of images per job changes. It is uncertain whether efficiency is truly represented, or whether it is simply a by-product of image density.

It does not make sense for EPA to recognize the ENERGY STAR qualification of a product in one international market and not in another.

Testing additional units to confirm unit-to-unit accuracy is burdensome and not required by existing safety standards.

EPA should consider unit-to-unit accuracy at a later date, after the specification is finalized.

Currently, manufacturers are testing as many products as we can to provide data to EPA for specification setting. We have not looked into unit-to-unit variability yet.

EPA should share TEC data received, at the present time as well as after all data has been received.

Operational Mode (OM) Data

The data seems to show that a large volume of the scanners (26.2%) in the database fall at or around 4.5 watts in Sleep; however, the remaining models (9.5%) fall at only a half-watt lower. EPA should consider this tight clustering carefully when setting a specification level.

EPA should retain a standard test method to determine speed for OM products.

EPA should consider specifying ready mode because the Agency is already collecting data about this mode.

Summary of Draft 1 Comments

Duplexing

Since EPA's dataset does not include duplexing details, EPA should consider the requirements carefully to avoid setting a specification where only 10% of the models would meet all requirements.

OM and TEC products should have different duplexing requirements.

Including a duplexing requirement in the specification would not increase actual use of duplexing in the field. 90% of copiers in the market have duplexing capability; however consumers do not want to use it.

Although consumer products are faster now, adding duplexing is costly, particularly in a market segment where manufacturers cannot afford to pass the added cost along to the consumer.

The duplexing requirements that were appropriate for Blue Angel a number of years ago may not be appropriate today.

Blue Angel applies to Electrophotographic (EP) devices more than Ink Jet devices. Note that very few Ink Jet devices currently qualify for Blue Angel.

Referencing Other ENERGY STAR Specifications

Requiring that external DFEs are ENERGY STAR qualified under the ENERGY STAR Computer specification requires that these computers are commercially available. This is not the case with DFEs.

No DFEs are actually computers.

Non-Mains Powered Products

EPA should be careful to avoid including USB-scanner data in the dataset for setting specification limits, since these models could bring down the overall average.

Partner Commitments

Labeling

EPA should clarify whether it expects partners to display the ENERGY STAR mark on individual product specification Web pages or on a more general page regarding these products.

EPA should consider maintaining the same ENERGY STAR mark for the life of a specification. Changing the mark during the implementation of a specification (e.g., introducing the cyan mark while the Memoranda of Understanding (MOUs) are in effect) is very challenging for manufacturers.

Collection of Unit Shipment Data (USD)

In a situation where a certain product segment is dominated by a single or a small number of manufacturers, even masked USD could lead to disclosure of sensitive market data. EPA should consider collapsing certain categories of products when developing the details of collecting and aggregating this data.

Since the specification will become effective in March 2007, EPA should postpone collecting USD for imaging equipment until 2008.

If EPA collects USD on a global scale, it would be difficult, if not impossible, to obtain the USD by specific market (e.g., The Netherlands vs. France). However, it is relatively straightforward to provide data as grouped by voltage/frequency combination (e.g., 115 vs. 230) or region (e.g., EU vs. North America).

Manufacturers do not always have control over data on the specific destination market since they are first shipped to a distributor that covers several countries.

Digital Front Ends (DFEs)

DFEs and integrated controllers are basically the same with regard to functionality. There is no clear way to differentiate one from the other.

No more energy is required for an internal DFE than an external DFE.

There is a way to measure the specific electricity used by an internal DFE (e.g., Case 3 in Océ's presentation); however, it can only be measured via DC methods not via AC methods.

Recovery Time

If recovery time from a low-power mode is too long, customers tend to disable power management by simply turning it off or extending the timer setting to such a long period that it is no longer effective.

The TEC method accounts for recovery time. If a machine takes a long time to recover, the energy used during that recovery will be reflected in the job measurement. Therefore, it is not necessarily beneficial to manufacturers to use short default-delay times during the test procedure.

Copiers and printers have different user tolerances in regard to default-delay times. A walk-up device, such as a copier, needs to have a shorter time-to-first copy for customer satisfaction than a printer.

Not every manufacturer lists recommended default-delay settings or recovery times in their product literature. If EPA requires excerpts from such data, they should require it only "when applicable."

EPA should be concerned about products that meet ENERGY STAR but take a long time to recover. It is in EPA's best interests that ENERGY STAR is not associated with products that use settings that lead to consumer dissatisfaction.

EPA should use its compliance testing initiative to confirm whether products are recovering in a suitable fashion in the field. EPA should not require manufacturers to report this.

Most manufacturers will test their products the way that the test procedure directs (e.g., using recommended settings).

If EPA insists on requiring disclosure of recovery time and/or default-delay times in a box insert or user manual, a user manual is preferable due to lower costs. One company stated a preference for separate educational efforts-aside from product-related materials.

Differentiating Ink Jet Products

There is a range of Ink Jet products on the market that vary from low-capability to high-capability; however, every variation can have features added to the base, even the high-capability products.

A specification based only on speed would not be sufficient to capture the models on the market. Ideally, a specification should look at both speed and functionality. A specification should not rely on claimed speed, which is inexact and varies widely among manufacturers.

The fact that the existing qualified and non-qualified product data EPA analyzed was based on claimed speed might explain why the data shows no direct correlation with speed. Using claimed speed does not conclusively show whether or not there is a speed dependency.

There may be a way to measure Ink Jet speed in a manner using nozzle-count and frequency (i.e., "spits/second") rather than page count. This approach would be less sensitive since it is not consumer oriented.

A functional-adder approach does not necessarily need to be overly specific. Different functions could be grouped or collapsed, such as allotting a certain amount of power for "network capability" rather than specific types of network cards.

Base models are built with a power supply that can support all available optional functions, even if these options are not present.

If EPA is considering a functional-adder approach for OM products, they should consider it for TEC products as well.

Products addressed by TEC show a greater correlation between speed and functionality. The functional-adder approach may not be necessary for TEC products.

Standby Power (Off Mode) for Products under OM

If a product is connected to a network 24 hours a day, there is no reason to specify how much power it uses in off (i.e., standby).

In many offices, users turn off their office equipment at the end of each day. It is important for the machine to have the capability to enter off mode and consume minimum power while in this mode.

EPA should carefully consider what is achievable in standby mode for MFDs with fax capability.

Remanufactured Products

One of EPA's rationales for eliminating grandfathering is that it reduces consumer confusion. Recognizing remanufactured machines as ENERGY STAR when they don't meet the current specification contradicts this reasoning.

ENERGY STAR should only consider direct energy savings, not indirect life-cycle savings. If EPA does create different rules for remanufactured products, other indirect energy and environmental benefits should be addressed as well.

High-end, high-speed machines have hit the wall in regards to obtaining additional direct energy savings. Remanufacturing is one way to reduce the energy demands these products require.

If EPA recognizes remanufacturing, a clear definition of what constitutes a remanufactured machine is needed.

A modified effective date is one possibility for addressing remanufactured products.